Some irregular imperatives in Tocharian

The Indo-European parent language formed imperatives from both present and aorist stems. This state of affairs is still attested in Indo-Iranian (cf. Ved. 2 sg. kṣatūri vs. kṣutī < kṣ- ‘do’) and Greek (cf. 2 sg. λέγειν vs. λέγε < λέγω ‘I leave’), where imperatives of the two types contrast actually; in most of the remaining languages one or the other stem has been generalized. The imperatives ofItalic, Germanic and Celtic, the westernmost branches of the family, belong synchronically and historically to the present stem (cf. Lat. fer, Go. bair, OIr. beir ‘bear’, corresponding respectively to 3 sg. indic. firt, bairi, berid). The opposite treatment is found in Armenian: positive commands are expressed by the aorist imperative (e.g., 2 sg. lik’ ‘leave!’ ( = Gk. λέγε), while the “present” imperative used in prohibitives (cf. mi l’k’ner ‘do not leave’) is in reality a reflex of the old present injunctive and not historically an imperative at all.

Although the details are less transparent than in some of the other early IE languages, Tocharian seems to have followed the Armenian pattern. As presented by Krause and Thomas (Tocharisches Elementarbuch I, 234ff), the Tocharian imperative constitutes an independent formal system, essentially coordinate with the systems of the present, subjunctive and preterite. As a purely synchronic statement this description is no doubt correct, but it is also clear, however, that while resemblances between the imperative and present stems are rare and accidental, the stem of the imperative normally bears a close relationship to that of the preterite or, less often, the subjunctive. A representative lexical item in this respect is the verb AB tärkh- ‘release’, which forms a class VI (-nā-) present, a class V (-ā-) subjunctive and a class I (-ā-) preterite; the imperative (class I) is B bätarkha, pl. bätarkhsa [A bärkh, bärkhs] < CToch. *pāţärkā, *pāţärkās(o), which shows the same stem-final

*ā- as the preterite and subjunctive but no trace of the nasalization found in the present. Similarly, verbs with class III (-sā-) imperatives, such as A yām- ‘make, do’, ordinarily have class III (-sā-) preterites as well, with which they share the idiosyncrasy of confining the characteristic element to the middle voice (cf. impv. act. sg. pyāin, pl. pyāṁdā (i.e., yām- + 2 pl. -i), like pret. act. 2 sg. yāmāś (i.e., yām- + 2 sg. -ś); but impmv. mid. sg. pyāṁtār, pl. pyāṁtās (i.e., yām- + -sā- + 2 sg. -r, pl. -c), like pret. mid. 2 sg. *yāṁtāśe, pl. yāṁtās (i.e., yām- + -sā- + 2 sg. -te, pl. -c). In the comparatively infrequent cases where a Tocharian imperative appears to be derived from a present stem, this is usually fortuitous—a mere reflection of the fact that the preterite stem is ultimately derived from the present as well (cf. B causative impv. mid. *pāklauchkāṣat, pl. pāklauchkāṣat (= klauchk- ‘turn’), recalling the causative present stem kлаuchkā-, but more immediately based on a class IV preterite in -sā-, itself of imperfect origin). The conclusion to be drawn from these facts is fairly clear: since the Tocharian preterite, and to an extent the subjunctive also, are based on the IE aorist, the formal association of the imperative with the preterite and subjunctive points to an earlier system in which the imperative of the present had been wholly or largely replaced by that of the aorist.4

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1 See Meillet, Essai d'une grammaire comparée de l'arménien classique, 2nd ed., 119-21, for a general account of the Armenian imperative. The relationship of the present imperative to the injunctive is discussed in KZ 93, 143ff. (1979).

2 A few general conventions should be noted. In citing Common Tocharian forms I use the symbol * to stand for the vowel ancestral to A e and B e, I and I write *-s(o) for the ending of the 2 pl. imperative to represent, at least formally, the "bewegliches o" that appears in this position in Toch. B. Here and below, the predecessor of the optional imperative prefix p(ā-) is given for conveniences as *p(ā-), even though the Fremdvolkal *ā- had almost certainly been syncopated in some environments before the end of the Common Tocharian period. Unless otherwise specified, all imperative forms should be understood as belonging to the second person.

3 Toch. B has similar imperative forms (2 sg. act. pyām, pl. pyāmos; mid. pyāṁtas, pl. pyāṁtats), but has replaced the class III preterite *yāṁdā- by the class IV preterite *yāṁdās (cf. 3 sg. yāmās (yāmā), 3 pl. yāmāsare (yāmāsāre etc.).

4 Not all the Tocharian preterite types of course, are equally transparent. The relationship of the class III (-ā-) preterites to the PIE aorist is obvious, as is the derivation of the irregular preterite 3 sg. A kāc, B kāc ‘went out’ from the inherited thematic aorist *h₁ludhēt (= Gk. ἐλέυθ. OIr. liud ‘went’). I have argued in D88, 55ff. (1983) that the class I (-ā-) preterites are aorists in origin also, and I think it more than likely that the class II (reduced) preterites continue the same formation as the Indo-Iranian and Greek reduced aorist, albeit with the secondary additive of *-ā- from class I. The preterites in *-pā- (class IV) are discussed below.

The subjunctive types present a less unified picture. It will be shown elsewhere that the class V (-ā-) subjunctives and, in part, the class I (athematic) subjunctives derive from aorist formations as well.
Having established these preliminaries, we may now consider the irregular imperatives of the verbs 'to hear' and 'to go', to which the remainder of this paper is devoted.

1. B pāklyauṣ, pl. pāklyauṣo [A pāklyos, pl. pāklyosās]

The verb B khyauṣ, A khyos- 'hear' forms a class II (thematic) present B 3 sg. khyauṣāṃ, mid. khyauṣār [A khyosār] and a homophonous class II subjunctive, both pointing to an apparent thematic stem *khyauṣ-. The preterite is of the common type in -ā (class I), but with the significant irregularity that the root-final -ā is palatalized in both languages (cf. 3 sg. B khyauṣa [A klyos], pl. khyauṣāre [klyosār]). Given the close connection of the preterite and imperative systems, it is not entirely surprising that this exceptional palatalization recurs in the imperatives B pāklyauṣ, pl. pāklyauṣo [A pāklyos, pl. pāklyosās]. The latter forms, however, are peculiar in another respect as well: the absence of final -ā in B pāklyauṣ shows that at least in Toch. B, and probably in Common Tocharian as well, the imperative of the root *khyauṣ- was built from an unextended stem *khyauṣ-, rather than from a class I imperative stem of the regular type in *-ā.² The lack of an otherwise characteristic theme vowel is a typologically archaic trait in the older IE languages, and even if the palatalization of root-final -ā to -ā were not of interest, the "athematic" structure of pāklyauṣ would single it out for attention.

A simple way to account for the missing final vowel of pāklyauṣ would be to suppose that the expected *(pā)klyauṣ < *(pā)klyauṣā was indeed regularly formed in Common Tocharian, but that its ending was then lost, either within the common period or at an early stage of Toch. B, by a sporadic truncation rule. Such a scenario would not at first glance seem unlikely. Irregularly shortened imperatives, originally proper, no doubt, to the language of peremptory commands, are commonplace in the IE family, a familiar example being Lat. fac 'do!', díc 'say!' and díc 'lead!' for regular, and much rarer, face, díc, díc. The specific facts of Tocharian, however, rule out an explanation of this kind. First of all, there do not appear to be any other examples of trunc-}

² Krause and Thomas (p.239) also list A kāṭk- 'traverse' (pret. 3 sg. kāṭkā) here, but the ablaut and non-palatalization of the final cluster in 3 pl. kāṭkar makes the real position of this verb very uncertain.

³ Toch. A shows the usual replacement of *sk- by -i- and the corresponding replacement of *ṣḍ- by -ḍ-.

⁴ Very little is known concerning the original structure of these forms. Since the suffix of the class XII presents is inherently palatalized it is obviously not necessary to attach any special importance to the fact that the -ā- of the class V preterites is palatalized as well. Nevertheless, the parallelism with the verbs in *sk-:*ṣḍ- suggests that the suffixes -ā- and -ḍ- have a common explanation.
the typical stem-final element in verb forms with preterital meaning. A similar development, albeit at an earlier date, can probably be assumed for *klyawsa and the other palatalizing preterites discussed above. At the beginning of the relevant part of their history, these verbs evidently lacked preterites (i.e., aorists) of any of the ordinary types; their only past tense forms were the palatalizing imperfects (< optatives) in *-i- irregularly formed to all present stems. Because of the semantic overlap of the imperfect and preterite, it must occasionally have come about that forms like *klyausi were used with the value of true preterites. The result was a formal renewal and bifurcation: in its capacity as a surrogate preterite, *klyausi was analogically remade to *klyaus, with the vowel of the class I preterites, while the old form *klyausi subsisted as an imperfect, the function still retained by its unaltered Toch. B descendant. In Toch. A, where -ā- was subsequently introduced into the imperfect as well, the newly established opposition between impf. *klyausi and pret. *klyausa was secondarily eliminated.10

These facts have a direct bearing on the proposed derivation of Toch. B pāklyaus from an underlying preform *(pā)klyausa. It is clear that an imperative *(pā)klyausa could only have been formed on the basis of the palatalizing ā-preterite *klyausa, which, as we have seen, is of comparatively recent origin. This, of course, is not a negative argument in itself: there is no obvious reason why the creation of the preterite *klyausa, the formation of the derived imperative *(pā)klyausa and the subsequent truncation of *(pā)klyausa to *(pā)klyaus could not all have taken place within the Common Tocharian period. An examination of the other cases in which new imperatives have arisen from palatalizing ā-preterites, however, effectively eliminates this possibility. The largest group of examples is furnished by the causative verbs in *-sk- (A -s-) with class IV preterites and imperatives in *-ta- (A -j-), the type

9 It is easy to see how this situation could have come about. The "roots" klyausa, pātrs, nāx- and pātr(k) - all end in an *-s- or *-sk- which originally marked the present stem only; similarly, B pānu owes its *un- to an old present in *-ny- or *-yi (cf. A pānu-). The inherited aorists, if any, of these verbs would thus have been formally quite remote from their presents - a feature which would have made them natural candidates for morphological replacement. In the case of the overwhelming majority of the causatives in *-sk-, of course, no aorists were inherited from the parent language at all.

10 Slight differences, to be sure, remain between the two formations, the most important being the contrast between the 3 sg. pret. klyos and the 3 sg. impf. klyos. The retention of the -ā in the latter form, as in the 3 sg. imperfect generally, is doubtless due to the analogical influence of the rest of the paradigm.

11 Note that Krause and Thomas' assumption of a B 2 sg. active *pān (p.234) is thus unfounded; indeed, *pān(k)- does not seem to have made actire finite forms at all.

12 Since there is a discernible tendency for middle forms to predominate in the other imperative classes as well, it seems reasonable to speculate that the active imperative was no longer fully productive when the palatalizing forms in *-ā- were created.
átrōt (1 sg. átravam), which stands in a familiar and archaic derivational relationship to the nasal present ḫuṣāti (< *kʰ₁uṣ-a-ti; cf. Av. surama-ōtii, OIr. rdainethath, etc.). The aorist imperative 2 sg. ḫuṣ-dhi ‘hear!’ is especially well established, being represented not only by Ved. śūṭhi, but by Gk. ἔσθη and Arm. īr as well.11 No comparably good evidence can be marshalled for the present stem ḫuṣeivo- or for its imperative ḫuṣēase. An extended root *kluas- sometimes thought to contain the “desiderative” *-s, is known from nominal formations around the family (cf. Ved. śuṣṭi ‘obedience’, OE hēst ‘hearing’; AV. sastra ‘hearing, obedience’, OCS slux ‘hearing’, etc.) and underlies synchronically primary verbs in Tocharian, Germanic (cf. OHG hlosi ‘listen’), Baltic (cf. Lith. klausi ‘ask’, klausi ‘listen’ (with *k- for *k₁-), Slavic (cf. OCS ili-šati ‘hear’) and Indo-Iranian (cf. Ved. ptcp. śrojama- ‘obeying’). The latter forms, which are obviously our chief concern here, constitute a heterogeneous group. OHG hlosi is a class III weak verb, and as such may have developed from an athematic present or perfect middle along the lines set forth in my Staticue und Middle in Indo-European, ch.3.14 Of the Lithuanian forms, klausi (pres. 3 p. klašia) was probably originally athematic as well (see on the semantics W. P. Schmid, JF 67, 1–15 (1962)), while klausiūt (ultimately continues an o-grade iterative *klauše-jevo-, OCS ili-šati (< *klu-as-é-) belongs to the same morphological type as viidi ‘see’—a type shown in SMIE, § 90, to continue an athematic present: formaton with “Narten” ablaut.15 Germanic and Balto-Slavic thus conspicuously fail to offer any support for the thematic stem ḫuṣeivo- in the parent language. The sole extra-Tocharian evidence for a thematic present comes from the Tocharian Ved. śrojama-, the precise status of which requires closer study.

The stem śroja- ‘obey’ is attested five times in the Rigveda, three times in the present middle participle śrojama- (RV 3.8.10, 7.7.6, 7.5.1) and once each in the 3 pl. injunctive śrojana (1.68.9) and 3 pl. imperative śrojan (1.86.5). On casual inspection these forms, which can be phonologically identified with CTocz. *kluasat: would seem to furnish the decisive argument for an inherited *klušeivo-. Two facts, however, militate against uncritical acceptance of the equation śroja- = *kluas-. First, the distribution of śuṣ- as a verbal root is exceedingly restricted: its occurrences in the Vedic corpus are limited to the above five citations, and the status of its Iranian counterpart sata- is even more marginal (see below). Second, and more important, it is impossible to separate śrojama-, śrojana and śrojantu from another sigmatic form, one whose relevance to the present discussion is only partly obscured by the fact that it belongs synchronically not to the paradigm of śuṣ-, but to that of the unextended root śuṣ-. This is the hapax śuṣ-i ‘heal!’ (6.4.7), a regularly formed imperative in -si comparable in type to such better attested examples as yākṣi ‘sacrifice!’ (yaj-) pāri ‘pass!’ (pṛi-), sāṣi ‘sit’ (sād-) and about twenty others. Since the thorough study of the si-imperatives by Cardona (Lg. 41,1–18 (1965)) and the parallel work of Narten (Die sigmatischen Aoriste im Veda, 45 ff.), it has been generally recognized that these forms are not, as assumed in the earlier literature, displaced 2 sg. indicative of root presents, but aberrant members of the family of the sigmatic aorist. More specifically, their connections appear to be with the s-aorist subjunctive: both Cardona and Narten have called attention to the striking distributional fact that the roots which form si-imperatives in the Rigveda usually also show well-developed sigmatic subjunctives, even if the corresponding indicative/injunctive is rare, late or altogether absent. The three roots just cited are typical: beside 31 examples of yākṣi (and three further cases of “medialized” yākṣava), the Rigveda has eighteen examples of the subjunctive yākṣa- (3 sg. yākṣata, etc.) but only three instances of the indicative and five of the injunctive;16 pṛi- furnishes sixteen cases of pāri (and one of remade pāra) beside 21 of the subjunctive pāra-, but not a single representative of the indicative or injunctive; sād- provides twelve instances of sāsi and the unique 3 sg. subj. sāsat (10.83.1), but no further sigmatic forms of any kind. Other roots which show the same pattern include dr- ‘pierce’, vah- ‘convey’ and vam- ‘win, grant’.17 The close distributional relationship between the si-imperatives and the s-aorist subjunctive explains the currency of the view, readvanced in this century by Szemerényyi (Lg. 42,1–6 (1966)), that the imperative

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12 If so, however, the form has been remodeled: the appearance of -s for *-r points to an accented root, which cannot be an old feature.
13 The existence of a class of PIE presents with lengthened grade in the active singular and accented full grade elsewhere was demonstrated in 1968 by Narten, Pratismam, pp. 9–19.
14 It is perhaps not entirely coincidental that four of the five injunctive occurrences are of the 1 sg. mid. yāKṣi, homophonous with the si-imperative.
15 The imperative *kluas- is not actually attested, having been modernized everywhere in the existing text to vahpin, under the influence of the medial subjunctive vahpira (cf. Narten, Sigm. Acr, 46–7).
ending *-si arose by haplogy in pre-Indo-Iranian from a 2 sg. in *-sati, and is thus actually of subjunctive origin.\(^{18}\)

It is easy to see the significance of these facts. The existence of the imperative *sroja- virtually compels us to assume a sibmatic subjunctive *sroja- for some stage of Indo-Iranian. No such subjunctive, however, is actually encountered in the Rigveda; instead, we find five occurrences of a derivationally isolated stem *sroja- serving in the role of an ordinary present. Under the circumstances it is difficult to escape the conclusion that this present is itself the missing subjunctive corresponding to *sroja-, and that its loss of modal value was an innovation of the pre-Vedic period. This view is not entirely new. The inseparability of *sroja- and *sroja- was already seen by Renou (BSL 38, 84 (1937)); Narten, while avoiding a definite position on *srojamaba- and *srojamatu, accepts a subjunctive reading for *srojam at 168.8, and cites the creation of the present hāsat ‘races’ (< *-leave behind’, ultimately from hā- ‘leave’) as a parallel for the development of an indicative in -sa- from a weakened subjunctive (op. cit., 260-1, 285-6).\(^{19}\) An even closer parallel is furnished by the root naš- ‘reach’ and its s-extant derivative nakys-: the former is traditionally said to underlie the si-imperative nakṣi (cf. śrus- śroja), while the latter has hardly any existence at all apart from the thematic subjunctive-present nakṣati (cf. śrus- śroja).\(^{20}\) Other, in part later, examples of presents based on sibmatic subjunctives are discussed by Narten, pp. 42-3.

The hypothesis that the present *sroja- continues an old subjunctive, though based entirely on internal Vedic evidence, receives a measure of support from Iranian. The sole s-extant verbal derivative of the root sana- in Gothic Avestan is the 1 sg. subj. mid. sanaipo (Y. 50. 4), rendered ‘ich will mich vernehmen lassen’ by Hambach (Die Ga\thas des Zarathustra I, 147) and, rather more plausibly, ‘I shall obey’ by Insler (The Gathas of Zarathustra, 99). Strictly speaking, the ending -ānē is ambiguous, since it affords no basis for distinguishing between a sibmatic subjunctive of the type discussed above and the ‘long-vowel’

\(^{18}\) The idea is in fact found as early as Benfey’s Sanskrit grammar of 1852 (Handbuch der Sanskritsprache. Erste Abteilung: Grammatik, p. 397).

\(^{19}\) Further evidence for a subjunctive *sroja- is furnished by the ritual cry *sranaf ‘let him hear’, which shows the plui-lengthening of pre-Vedic *-au- to *-āu- (cf. Hoffmann, ZDMG 110, 176 f. (1960)).

\(^{20}\) In the context of the complete a\verb|verbo| of the root nakṣ: it is clear that the perfect namakṣ, which appears four times in the Rigveda, is a secondary abstraction from the present.

subjective that would have been regular beside a thematic indicative *sraunā-. Nevertheless, it is striking that the only Gothic form remotely comparable to Ved. *sroja- is in fact a subjunctive, and tempting to account for this in a principled way by deriving both from an Indo-Iranian subjunctive stem *sraunā-. Curiously, the originally modal *sraunā- appears to have given rise to a middle participle in Iranian as well as Indic: such, at any rate, is the testimony of YAv. sraunamn (V. 13, 17; v.l. sraunmān), taken by Kellens (Le verbe avestique, 396) to represent a small but well-defined class of participes subjunctivis aoristis.

The above argument has the apparent disadvantage or requiring us to abandon the otherwise attractive comparison of *srojamapa-, etc. with CToch. *khyauṣṭār. Yet, somewhat surprisingly, perhaps, this is not in fact the case. It is universally recognized that the indicative of the PIE s-aorist is continued in the Tocharian s-preterite (class III), a formation conventionally illustrated by the preterite of the verb ‘to ask’ (cf. B 1 sg. prekwa [A prakwa], 3 sg. prekia (prakā) ‘asked’ (< Ved. 3 sg. aprāt)).\(^{21}\) Less well-known, but almost as clear, is the fact that the subjunctive of the s-aorist is preserved in the thematic s-presents of Krause and Thomas class VIII (cf. B 1 sg. preksaw, 3 sg. preksaw [A praksam, prakā < *prakṣaj]). The s-presents are of course productive in Tocharian; this is especially true in Toch. A, where they have mechanically replaced the s-presents, mostly causative, which Krause and Thomas assign to class IX. Nevertheless, certain distributional facts make it possible to detect the original locus of the type in the s-aorist subjunctive. The association of s-presents with s-preterites, seen, e.g., in the example cited above, is typical of both causatives and non-causatives (cf. Krause-Thomas, 266-9), and difficult to account for save by assuming a formal link between the two sibmatic categories.\(^{22}\) Of decisive importance is the small lexical group consisting of nāk- ‘destroy’, nām- ‘incline’, pāk- ‘ripen’ and sāk- ‘burn’. These roots, all of which have good IE etymologies, correspond to verbs with thematic presents and, in three cases out of four, sibmatic aorist systems in Vedic (cf. nātā, -te ‘is lost’ (no s-aor.); nāmati, -te ‘bends’, s-aor subj. 1 sg. nāpatai, 3 pl. nāmpante

\(^{21}\) Here and below we shall retain the traditional term “s-preterite”, even though the characteristic consonant is sometimes absent from the middle and is invariably confined to the 3 sg. in the active.

\(^{22}\) The possibility that the s-presents somehow continue an early form of the s-preterite (or s-aorist) indicative is ruled out by the fact that the latter category is not, and seems never to have been, fully sibmatic. Cf. note 20.
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(indic. 3 sg. anān (K)); pācati, -te 'cooks', -s.aor. subj. pākṣat; dāhati, -te 'burns', -s.aor. 3 sg. dāhāk, si-impv. dhākṣi). The pattern is an archaic one, being well-known from pairs like sāhati 'conveys': dvāṣat/dvākṣat, jāyati 'conquers': ājāy/jāyat or Gk. σαῦχω 'I make a drink-offering': sāvat/sākṣat, subj. 1 pl. sākṣayet. It is a remarkable fact that all three of the formations illustrated in these examples - thematic present, s-aorist indicative and s-aorist subjunctive - recur in Tocharian. The thematic presents of nāk-, nām-, pāk- and tāk- are preserved in the class III deponent subjunctives B 3 sg. nēktār [A nēktār], mēmat, vb. abstr. phēlē [pēkalanē], 1 sg. tāskem [vb. abstr. tāskalē], pointing respectively to stems *nēk-o-, *nēm-o-, *pēk-o-, *tēgh-h-o- (cf. SMIE, pp. 36-7). The corresponding s-aorist indicatives appear in the class III preterites E 2 sg. nēkasta (3 sg. medi. neksitē) [A 3 sg. nēkāt (medi. nēkāt)], 3 pl. nēmar(-nei) [A pēkant, pēkant, pēkēt, pēkēt [A 3 sg. medi. pēkāt], 3 pl. tēskār (1 sg. medi. tēskamai) [A 3 sg. medi. tāskāt].

Given these two correspondences it is impossible to deny a third - the identity of the transitive s-presents B 3 sg. nēksām [A nēksā], nēmsām [nēmsā], pēksām [pēksā], tāksām [tāksā] with the Vedic s-aorist subjunctives *nākṣa-, nāmsa-, pākṣa-, *dāksa- (cf. dhāksa). From a functional point of view the development of aorist modal forms to present indicatives may seem a counterintuitive change, but Tocharian historical grammar affords many parallel cases of indicative stems which have acquired modal value, and vice versa. Formally the match is perfect: only the absence of initial palatalization, easily explained analogically, stands in the way of a direct derivation of the Tocharian forms from PIE subjunctives *nēk-se-o-/*nēm-se-o-/*pēk-se-o-/*dēgh-se-o-.

The implications for the verb to 'hear' are straightforward. If the Common Tocharian present stems *nākṣa, *nāmsa, *pākṣa, *tāksa, etc. in fact continue old s-aorist subjunctives, there is every reason to favor a similar analysis for the present stem *klyas. The equation of CToch. *klyas- and Vedic śrājas- is perfectly valid, but the PIE *kāluses-/*kāluses- to which it points was the stem not of a present indicative but of a subjunctive. There is no basis for deriving CToch. *(p)pākṣa from a preform *kāleich; the simple fact is that a PIE imperative of this

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23 Cf. note 4 and the discussion of the imperfect above. The prevailing transitive and/or causative value of the s-presentes, which recurs in the corresponding s-preterites, recalls the function of the s-aorist in Greek examples like ἑρώτω 'set up (tr.) vs. ἐρέω 'stood (inst.)' or ἐφέσσε 'stayed up, raised (tr.)' vs. ἐφέσσω 'rose (inst.)'. The extent to which such pairs preserve an inherited feature requires further study.

24 An imperative built to a thematic aorist, however, survives in A plēc, pl. plētis 'go out!' < *(h)ud Estimate; cf. note 4.

25 To be sure, there are minor differences between the Old Irish forms and their Vedic counterparts. Like all the inflected forms of *sc(c) and the imperative tair and subjunctive -tair(i) show the generalization of the zero-grade *h₄-n- at the expense of the more original full-grade *h₂-n-. In addition, the imperatives tair and to are not, strictly speaking, phonologically regular, since pre-Old Irish *to-ar-e- (tair) and *to-gō(i) would normally have been expected to yield *tair(i) and *tai(i) -a respectively. The apparent truncation of these forms has the same explanation as the irregular shortening frequently seen in the 3 sg. of the s-subjunctive, which in effect forms part of the same paradigm: in both the imperative and subjunctive the regular change of *-s-, *-gō-, etc. to *-ś-, *-gōs- in unstressed medial syllables was analogically generalized to final syllables as well. The absence of similar shortening in diffic < pre-irish.
Once the existence of si-imperatives is admitted for the parent language, a plausible case can be made for their survival in other IE traditions as well. In Hittite, for example, a number of hi-conjugation verbs have imperatives in -i. Not all of these forms are to be analyzed in the same way; in some, such as *iyanniti 'march!' and uppi 'send!', the -i is clearly a component of the stem (cf. sup. iyanniwaš, pres. 1 pl. uppeniwaši), while in others, notably including the very common pahiši 'protect!', it apparently has the status of a desinence. I am indebted to H. Craig Melchert for the interesting observation that two other archaic imperatives of the pahiši-type likewise end in the phonological sequence -ši: the forms in question are eši 'settle, possess!', which occurs once in the Middle Hittite Madduwat-taš text, and ēšiši (e-išši) 'perform!', found in the Hittite-Akkadian bilingual of Ḥattušiliš I, where it is probably a modernization of *i-išši in the Old Hittite original.26 However these "šu-imperatives" are to be explained, it is hard to believe that they can be wholly independent of the si-imperatives of Indo-Iranian and Celtic. In the case of pahiši in particular, it is significant that the Rigveda attests two instances of an isolated subjunctive pāša- (3 sg. pāṣati, 10.17.4; 3 du. pāṣastā, 7.34.23), so that it is even possible to regard the Hititite form as the exact cognate of a virtual Vedic *pāši?27

Tocharian, I submit, is simply another example of an IE language group that has preserved a historical relic of the imperatives in *-si. Proto-Indo-European seems to have had a series of subjunctives in *-selo-, typically coupled with si-imperatives and often, though not always, associated with s-aorist indicatives as well. One root which never developed an s-aorist indicative, but which apparently did have a sigmatic subjunctive and imperative, was *kleuš- 'hear', the s-subjunctive and si-imperative of which are respectively guaranteed by the twin equations Ved. śrośas- = CToch. *kheuš- and Ved. śroši = CToch. *(p)ahihšuš.28 The latter form evidently served as the basis for the creation of 2 pl. *(p)ahihšuš(ō); *(p)ahihšuš and *(p)ahihšuš(ō) then developed regularly to the attested forms, B pahihšuš, pahihšušo and A pahihšuš, pahihšušā. Note that under this analysis there is no need to invoke a process of sporadic shortening, as required by the hypothetical derivation of *(p)ahihšuš from *(p)ahihšušā, or to explain the anomalous retention of an innovated present imperative, as required by the "standard" derivation from *kleuši. The crucial assumption is that the si-imperatives were a PIE category; so long as there is no a priori reason to reject the preform *kleuši it is clear that the si-imperative theory provides a simpler and more direct account of the facts than any other.

As a postscript to the above, it may be of interest to note the existence of one further form that bears on the legitimacy of assuming a PIE *kleuši. In the poorly understood Messapic language there survive four inscriptions that begin with the sequence KLAOHIZIS or KLOHIZIS; that this is to be read as two words KLAOHIZIS is shown by a

27 It should be noted that the existence of si-imperatives in Old Irish in no way compromises the theory that derives these forms by haplology from 2 sg. subjunctives (see above); it does, however, require us to assume PIE *-esi, rather than Ir. *-esi, as the pre-haplologized sequence.
28 So Oettinger, Die Stammbildung des hethitischen Verbums, p. 59.
29 The possibility of a connection between pahiši and the Vedic si-imperatives is explicitly rejected by Oettinger (op. cit., p. 211), who gives no reason for his opinion.
30 Under these circumstances it is legitimate to ask whether the stem Kleušito- ought properly to be described as an "s-aorist" subjunctive. The question is partly one of terminology. The s-aorist in its classically reconstructed form was clearly a creation of the IE dialectal period, one of the most striking indications of this being the fact that Hititite and Tocharian agree in confining the s-aorist element, at least in the active, to the 3 sg. At the level of the still more or less homogeneous parent language, the s-aorist is probably best envisaged as a partly segmental root aorist, marked by an element *s- in the 3 sg. active indicative and in the middle and subjunctive, but lacking any overt tense sign in the rest of the active indicative and in the optative. Such an inflectional pattern can most easily be explained by assuming an early blending of two distinct categories, whereby certain forms originally proper to a desinatural or inchoative s-present were serendipitously introduced into the paradigm of an obsolete type of root aorist. According to this scenario *kleušito- and a "normal" s-aorist subjunctive-like *kleušito-, along with their si-imperatives, would both have originated as the subjunctives corresponding to present of the type Kleušito-s (i) and kleušito-s(i); the only difference between the two would have been whether Kleušito-s(i) and kleušito-s(i) were incorporated into the aorist system (where Kleušito-s(i) eventually triggered the "classical" s-aorist *kleuš-sm, *kleuš-sm, *kleuš-sm, etc.), while Kleušito-s(i) and its subjunctive remained presential, ultimately giving rise to the scattered derivatives of the "secondary root" Kleuš. Further examples of s-extended roots with the distribution of *kleuš-s are legion; for a close parallel to the type seen in *kleuš-i see *pēhj-s- 'protect', where the subjunctive *pēhj-selo- (Ved. pāṣati) and si-imperative *pēhj-s- (Hitt. pahihšuš) lack a corresponding s-aorist indicative in the daughter languages, while the underlying sigmatic present subsists in hitt. pahihšuš, OCS pāṣat 'I graze' and, indirectly, Lat. pāstit 'shepherd'. The essential identity of the two subjunctive types in *-selo- is reflected in the use of the term "sigmatic subjunctive" to refer to *kleušito- above. A detailed examination of these formations, and the conditions under which sigmatic aorists were created and extended within Proto-Indo-European, will be undertaken in a separate study.
fifth inscription that begins simply KLAΩHI. All five texts deal with legal matters, and there can be no doubt that the expression is formulaic in character. Since the suggestion was originally made by H. Krahe in 1936 (IF 54, 83–7) it has been usual to regard KLAΩHI ZIS as the Messapic counterpart of the phrase audi iitter which introduces the text of an early Roman treaty (Livy I 24, 7). As an imperative meaning 'hear!', KLAΩHI is ambiguous: the obvious comparison with Ved. śrōṣī, made originally by Deecke (Rk. Mus. 40, 142), is accepted by Pokorny (IEW, 607), but Haas (p. 204) prefers a derivation from a present imperative *kleniē. Our lamentable ignorance of Messapic phonology makes it impossible to decide between the two alternatives; nevertheless, it is self-evident that a preform *klenessi < *kleiisi, supported by the comparative evidence discussed above, is morphologically far preferable to *kleniē, which presupposes a tense stem found nowhere else in Indo-European. For the present it is probably safe to say that there is a distinct possibility – albeit nothing more – that KLAΩHI can take its place beside śrōṣī and *(pā)khyauws as an unlooked for, but welcome, tertium comparandum.

II. B pās, pl. peiño (cissio) [A pīs, pl. pic (picās)]

The verb 'to go' is suppletive in both Tocharian languages. In Toch. B the present and subjunctive are made from a stem *yā- or *yān-, which Krause and Thomas assign to class I (cf. 3 sg. yān, 3 pl. yanēm); the finite forms of the preterite, nominally assigned to class III, are based on a root or roots beginning with m- (cf. 3 sg. masa, pl. maitar). In Toch. A the stem *yā- underlies a class I present as well (cf. 3 sg. yāes, pl. yiνe), but the agreement with Toch. B does not extend to the subjunctive or preterite, which are instead built from a root kāk- (cf. subj. 3 sg. kākas (class V), pret. 3 sg. kālč (class I)). These discrepancies are easily explained. CToch. *yā- is ultimately a reflex of PIE *(h₁)es-i- 'go', the archaic present inflection of which is guaranteed by the match between Ved. 3 sg. ētī, 1 pl. imāb, 3 pl. yinfī and Gk. στην.

The texts are conveniently available in O. Haas, Messapische Studien (1962), where, however, the author's 'translations' testify more to the fertility of his imagination than to any dramatic advances in Messapic philology.

The only condition that can be said to emerge from Haas' discussion of IE *s in Messapic (pp. 191-3) is that the fate of this phoneme is utterly obscure.

The distribution of this root was clearly restricted: while the preforms *(h₁)ēt-t-, *(h₁)i-mē, *(h₁)i-ēnti, etc. rank among the safest reconstructions in IE historical grammar, the absence of any strong comparative evidence for the other tense stems makes it unlikely that *(h₁)i- formed a perfect or aorist in the parent language. The need to provide the present *(pā) with a preterite eventually forced the speakers of pre-Tocharian to resort to suppletion. Different roots were selected for this purpose in the two nascent dialects; in Toch. A the use of kālk-, which seems originally to have meant 'follow' (this is the meaning of B kalāk-), was extended to create a new subjunctive as well.

The corresponding imperative system is wholly irregular. All the attested forms presuppose a CToch. 2 sg. *(pā) and 2 pl. *(pā)c; accompanied by the particle *(p)a-, these yielded preforms containing the sequence *pā-, which developed to pi- in Toch. A and *(p)ā, whence accented pa-, in Toch. B. The plural form *(p)fyāc, marked by the synchronically opaque ending -c, was analogically recharacterized, perhaps independently, in both languages: Toch. A created the "long" variant picās by adding the productive 2 pl. ending -dī; Toch. B, following the same procedure, extended *(p)āc to *(p)āciso (> *piho) and abandoned the historically expected *pac. Neither of these remodelings seriously obscures the etymology of the underlying *(p)āc, which is obviously to be derived, along with Ved. itā and Gk. τε, from PIE *(h₁)ji-ē. The verb 'to go' thus confronts us with a clear, if isolated, example of an imperative based on a present stem. The reason for its survival is doubtless that at the time when other present imperatives were being replaced by a competing aorist forms, the Tocharian contingent of *(h₁)i- still furnished only presentational derivatives.

The 2 sg. *(p)ā is much more problematic. Although the *-s naturally recalls the final consonant of *(p)ākhyauws, the possibility that this form continues a si-imperative *esiis (or rather *esiis, with analogical *-i for -ei-) is very remote. Neither in Tocharian nor in any other IE language is there even fragmentary evidence for an s-extended stem from which a si-imperative might have been derived. Structurally, the *-s of *(p)ās, unlike that of *(p)ākhyauws, is simply a 2 sg. deinsonence – a rare one,

The example of A yār, B yāre 'path' (Lat. iter) shows that *-e was the regular reflex of PIE anteconsontinal *(h₁)ē- in Common Tocharian. In addition, the 3 pl. *(h₁)i-ēnti would initially have yielded CToch. *yānte.

The B form cissio, for phonologically regular *(p)eiisio is presumably a "decompound" made by stripping the attested pēio of its synchronically optional prefix p(a)-.
to be sure, but one which recurs in the irregular Toch. A form pac 'give!', pl. pac. 33 The fact that 'to go' and 'to give', the only two Tocharian verbs to show this ending, are also the only verbs which preserve the archaic imperative plural in -c < -*-te, is surely not accidental. 34 An ideal account of *yāth would derive the *-i from a PIE 2 sg. desinence, preferably one associated with an athematic paradigm in which the corresponding 2 pl. ended in *-te. The obvious candidate for such an ending is the primary 2 sg. in *-s; unfortunately, it is very difficult to see how *śi 'you go' (= Ved. śi) or its replacement *śi could have developed into a form with imperative meaning. 35

The problem can be approached from a different point of view. We have seen that the 2 pl. *yāc can be derived without difficulty from PIE *(h)y-i-te. We also know the imperative form that functioned as the 2 sg. counterpart to *(h)y-i-te in the parent language; this is *(h)y-i-dhi, the PIE status of which is assured by Ved. īhi, Gk. ἵθ, and Fitt. it (i-dh). 36 In context, it is natural to wonder what the phonological outcome of *(h)y-i-dhi would have been in Tocharian. Under the usual assumptions, we might have expected that *-di- would have fallen together with *-te, as it did in most other environments, and that the resulting stop (we may write *-T) would have undergone palatalization to *-c. The end result, after the loss of the final vowel and the change of *i- to *ya-, would have been CToch. *ya-c indistinguishable from the *yac of the 2 pl. Not all the stages in this development, however, are equally certain. In particular, it is important to note that there are no actual examples for the change of *-VTi to *-Vc(i) (where V = any vowel), the presumed palatalization of *-T to *-c in this position being a mere conjecture on the strength of the known development of *-T to *-c before *-. I would like to suggest that, reasonable as it may seem, this conjecture is false, and that there is positive evidence to show that the regular Tocharian reflex of *(h)y-i-dhi was not *yac but *yāth, the form which is actually presupposed by our data.

33 The structure of these forms is otherwise quite obscure, as is that of the corresponding B imperatives jero, pl. jeres.

34 Needless to say, the -c of CToch. *yac 'go!' and A pac 'give!' has nothing to do with the -c which serves as the normal 2 pl. middle ending in Toch. A; the latter almost certainly goes back to PIE *-de or *-dege.

35 Still less likely is van Winden's suggestion (Le tocharien II, 2, p. 246) of an infinitive *ni comparable to Lat. ire.

36 In ZK 93, 148-9 (1976), I have further suggested that the Armenian present "corticative" (e.g., 2 sg. berêz, pl. berêz, 'may you carry') is to be derived from a syntax of the type *bherêdhi-i idâ, pl. *bherêdhi-i idās, lit. 'go to carry!'

The palatalization of pre-Toch. *-T to *-c, in my view, was in certain environments blocked by an earlier rule which, like the Greek change of 3 sg. tûmën (Doric) 'puts' to tûmë (Attic-Ionic) or 3 pl. évô (Dor.) 'are to éôs (Att.-Ion.), converted *-T to *-s before *i. The exact conditions under which this assimilation took place are difficult to determine; the clear cases involve sequences of the form *VTi, in which the *-i palatalized the *-s- to *-y- before regularly disappearing in word-final position. Other than the imperative in -s itself, which is confined to both languages, there are two relevant examples, both confined to Toch. A. We shall examine these below.

The Toch. A ablative ends in -(a)s, which is added to the underlying oblique case-form of the singular or plural (cf. lântas : wâl 'king', dîm : dîm 'throne', pl. wrammas : wram 'thing'; further examples in Krause-Thomas, 87-9). No acceptable etymology has ever been found for this morpheme; although there are many final syllables beginning with *-s- which could have yielded Toch. *s (e.g., *-ses, *-sê, *-ses, *-sim), none can plausibly be associated with ablative meaning in the parent language. 37 The appropriate extra-Tocharian comparison, in my view, is with the Hitite singular and plural ablative in -(a)s (e.g., anthuf-haš 'from a man, from men' (stem anthufha-i)) and the Armenian ablative singular in -oy (e.g., í getoy 'from a river' (o-stem)) and -ê (e.g., í banê 'from speech' (i-stem), yan-anjînê 'from a person' (n-stem)), all of which can be traced to a PIE "adverbial" case-form in *-ti. The element *-ti seems originally to have been added to the endingless locative, as in Hitt. É-tur (= *pir(z)a) 'from a house' (cf. loc. É-tir, É-tîr (= *pir, *pirï), or the adverbs andurza 'inside' (cf. andur 'id.') and dapiša 'alongside' (cf. dapawoal 'side'). These, however, are relics; the regular Hitite ablative is the thematic type in -az < *-o-ô, which had already spread to the consonant stems by the beginning of the historical period and which corresponds exactly to the non-productive Armenian type in -oy. 38 The more common Armenian ending, -ê, is from *-eti via *-e(i), with the same phonological treatment as in 3 sg. berê 'carries' < *bhereti. The source of the vowel that precedes the *-ti in this sequence is not entirely clear; one possibility, suggested by the PIE

37 Rare alternants are -ay and -as, on which see below.

38 Van Winden's connection of the ablative ending with A ja, ja 'either' (op. cit., II, 1, pp. 255-6) is unsatisfactory at best, and a blatant case of obscuration per obscuration.

39 See MSS 31, pp. 123-8 (1973) for an account of the competing variants of the Hitite ablative. The derivation of -az from *-ti is guaranteed by the Luwian ablative-instrumental in -atti.
preverb/adverb *et₁i (= Ved. át, Gk. ἄτι), literally 'from (= beyond) this', is that *et-i was originally the variant of *-oti proper to stressed pronominal stems (cf. further Hitt. kēz and apēz, ablative to kē- 'this' and apō- 'that', respectively), and that from such forms it spread to nouns, typically athematic, in which the weak cases were accentuated.⁴⁰

The proposed sound law allows a direct equation of Toch. A -(ā)š with the ablative of Hittite and Armenian. A trace of the thematic ending *-oti survives in the isolated ānēma, abl. sg. of ānēma 'self, soul' (< CToch. *ātē(a)ma; cf. B ātēme); a parallel sequence *-ēti, proper, no doubt, to the å-stems, can be seen in occasional forms like kāryēš (kri, pl. kārēni 'will, thought'). The *Fremedskald of the normal postconsonantal allomorph -āš is easily explained. Alongside the types in *-oti and *-āti pre-Tocharian presumably inherited a series of ablative in *-āti and/or *-et₁i, the former belonging to the u-stems and the latter comparable to the Armenian type in -ē discussed above. Both sequences would regularly have yielded CToch. and Toch. A -āš and it is not unlikely that this variant first appeared in such forms.⁴¹ The subsequent spread of -āš at the expense of -āš and -ēš would have been a natural consequence of the loss of final *-ē and *-ē in Toch. A a change which vastly increased the number of oblique case-forms ending in a consonant and led to the creation of ablative in which ā-sh functioned as a mere epenthetic vowel.⁴²

Our second example of the change *-Vēti > *-Vṣi > -Vṣ is furnished by the Toch. A 3 sg. present active in -(ā)š (cf. pālkāš : pālk- 'shine', ēkāš : ēk- 'see', arāṣ : ar- 'produce'). This ending, like that of the ablative, has not been satisfactorily etymologized in the existing literature. The majority of scholars who have ventured an opinion on the subject, beginning with Holger Pedersen in 1941 (Tocharisch vom Gesichtspunkt der indoeuropäische Sprachvergleichung),

⁴⁰ In this way *et₁i would have come to stand in the same relationship to *-oti as did the athematic 3 pl. in *-et₁i to thematic *-et₁i, or the athematic gen. sg. in *-et₁i to thematic *-ot₁ (= Hitt. -at). Godel (An Introduction to the Study of Classical Armenian, p. 105) prefers a direct derivation of pre-Arm. *et₁i from the preverb *et₁i, but this would fail to account for the parallelism between -oy and -ē. The apparent *Gredenfels of Armenian phrases like γ-ēyos lērē 'from this mountain', which Godel takes as evidence for a postposition, is precisely comparable to the syntax of the secondary cases in Tocharian.

⁴¹ In the case of -ā < *āt₁i, we would have to assume that the expected palatalization of the preceding consonant was lost by analogy.

⁴² It should be borne in mind that the *Fremedskald in Tocharian A is a completely predictable alternant of zero.

p. 142), have favored a derivation of the final sibilant from a particle or pronoun ultimately identical with the IE demonstrative stem *se/o-; the reader is referred to van Windekens, op. cit., II 2, pp.263-6, for a survey of the numerous variants of this theory, all of which necessitate a fairly complex array of special assumptions for pre-Tocharian.⁴³ A far more elegant alternative now presents itself: if the reasoning of the preceding paragraphs is correct, the 3 sg. in -(ā)š can simply be taken as the regular postvocalic reflex of the PIE primary ending *-i. This is the position I would like to take here; a form like 3 sg. arāṣ, in my view, is in fact the lineal continuant of a pre-Toch. *sēt₁i (probably originally an s-arist subjunctive; cf. part I), while ēkāš reflects a proximate prefix *ākāti, perhaps from a still earlier *ākāši. As in the ablative, the -ē which regularly arose after vocalic stems was generalized to stems which historically ended in a consonant. The class 13 sg. pālkāš is thus not the direct reflex of a quasi–IE *bēkā-ti, nor even of a pre-Toch. pālkēti, but simply the form that resulted from the synchronic suffixation of -ē to the athematic stem pālk-⁴⁴

The above examples, though only two in number, are of such quality as to make it highly probable that CToch. -(ā)š is the regular post-
vocalic reflex of PIE *-ti in final position. It must remain a task for the future to determine whether the development of *-t- to *-j- took place in other environments as well; that the change was highly restricted is clear from the fact that unlike the similar rule in Greek, the Tocharian assimilation process was blocked after nasals (cf. A 3 pl. arseči 'they produce' < *-onti). What is important for our present purposes, however, is that the passage of *-t- to *-j- in the ablative and 3 sg. makes it a priori likely that *dh, which otherwise merged with *t almost everywhere, would have been subject to this treatment as well. We have seen that CToch. *yāj, the ultimate source of A piṣ and B paṣ, occupies the same structural position in the Tocharian verbal system as the forms ihi, ḫh and .Section occupy in the systems of Vedic, Greek and Hittite, respectively. In light of the results above, there is no reason not to account for this congruence in the most direct way possible, namely, by deriving *yāj from *(h) idh: by regular sound change. The conclusion is inescapable that here, as for quite different reasons in the case of *(pā) khy- aṣ, a Tocharian imperative in *-j preserves an archaism of remarkable antiquity.